What is claimed is:

1. An actuator comprising:

a first region of piezoelectric material;

a support structure; and

flexures attaching a perimeter of the region to the support structure.

2. The actuator of claim 1, further comprising first and second electrodes on opposite faces of the first region.

3. The actuator of claim 2, wherein two of the flexures provide respective electrical connections to the first and second electrodes.

4. The actuator of claim 2, further comprising:

a second region of piezoelectric material; and

a third electrode, wherein the second electrode is between the first and second regions, the first electrode is on a side of the first region opposite to the second electrode, and the third electrode is on is on a side of the second region opposite to the second electrode.

5. The actuator of claim 1, wherein an electric field applied to the region causes crystal structure change in a plane of the region causing the region to dish, where in dishing provides a stroke of the actuator.

6. The actuator of claim 1, wherein the region is part of a bimorph.

7. The actuator of claim 1, wherein the region is part of a unimorph.

8. The actuator of claim 1, wherein a first side of the first region has piezoelectric properties that differ from piezoelectric properties of a second side of the first region.

9. The actuator of claim 7, wherein the first side of the region is chemically reduced.

10. The actuator of claim 1, wherein the support structure comprises a substrate underlying the region.

11. The actuator of claim 10, wherein the substrate comprises electrically conductive traces that the flexures electrically connect to the electrodes.

12. The actuator of claim 1, wherein the support structure comprises a frame surrounding the region.

13. An array of actuators having the recited structure of claim 1.

14. The array of claim 13, wherein the support structure for each actuator in the array comprises a frame having a hexagonal shape, and the frames are arranged in a hexagonal array.

15. An actuator comprising:

a region comprising a first layer of piezoelectric material that is between a first electrode and a second electrode; and

a plurality of flexures attached to a perimeter of the region, wherein the perimeter of the region is unsupported except where the flexures attach to the region.

16. The actuator of claim 15, wherein the plurality of flexures includes:

a first flexure providing an electrical connection to the first electrode; and

a second flexure providing an electrical connection to the second electrode.

17. The actuator of claim 15, wherein the region further comprises a second layer of piezoelectric material that is between the second electrode and a third electrode.

18. The actuator of claim 17, wherein the plurality of flexures includes:

a first flexure providing an electrical connection to the first electrode;

a second flexure providing an electrical connection to the second electrode; and

a third electrode providing an electrical connection to the third electrode

19. A deformable mirror comprising:

an array of piezoelectric actuators fabricated on a substrate; and

a mirror membrane attached to the array of piezoelectric actuators.

20. The deformable mirror of claim 19, wherein each actuator comprises a bimorph.

21. The deformable mirror of claim 19, wherein each actuator comprises a RAINBOW.

22. The deformable mirror of claim 19, wherein each actuator comprises:

a region of piezoelectric material;

a frame surrounding the region; and

flexures attaching a perimeter of the region to the frame.

23. A process for fabricating an actuator, comprising:

forming a sacrificial layer on a substrate;

forming a trench in the sacrificial layer;

depositing a first conductive layer over the first insulating layer;

patterning the first conductive layer to form a first electrode overlying the sacrificial layer and a first conductive trace extending from the first electrode into the trench;

forming a first disk of piezoelectric material overlying the first electrode;

depositing a second conductive layer overlying the first disk and extending into the trench;

patterning the second conductive layer to form a second electrode overlying the first disk and a second conductive trace extending into the trench; and

etching the sacrificial layer from under the first electrode.

24. The process of claim 23, further comprising reducing a top surface of the disk before depositing the second conductive layer.

25. The process of claim 23, further comprising:

forming a second disk of piezoelectric material overlying the second electrode;

depositing a third conductive layer overlying the second disk and extending into the trench;

patterning the third conductive layer to form a third electrode on the second disk and a third conductive trace extending into the trench.

26. The method of claim 23, further comprising depositing a first protective layer on the sacrificial layer and in the trench, wherein the first protective layer protects the first conductive layer during removal of the sacrificial layer.

27. The process of claim 26, wherein the first protective layer comprises silicon nitride.

28. The process of claim 23, wherein the first conductive layer comprises a layer of platinum and a layer of titanium.

29. The process of claim 23, wherein the first disk comprises PZT.

30. A process for fabricating an actuator, comprising:

forming traces on a substrate;

forming a first sacrificial layer overlying the electrical traces;

forming a first conductive plug and a second conductive plug through the first sacrificial layer, wherein the conductive plugs are electrically connected to the traces;

forming a first electrode overlying the first sacrificial layer, wherein the first electrode is

electrically connected to the first conductive plug and electrically isolated from the second conductive plug;

forming a first disk of a piezoelectric material overlying the first electrode;

forming a second electrode on the first disk, wherein the second electrode is electrically connected to the second conductive plug and electrically isolated from the first conductive plug; and

removing the first sacrificial layer from under the first electrode.

31. The process of claim 30, further comprising:

forming a third conductive plug through the first sacrificial layer, wherein the third conductive plug is electrically connected to one of the traces;

forming a second disk of a piezoelectric material overlying the second electrode; and

forming a third electrode overlying the second disk, wherein the third electrode is electrically connected to the third conductive plug and electrically isolated from the first and second conductive plugs.